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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/753,833 | 01/05/2004 | Tianbing Brian Teng | 7293-88 | 6792 |
| 20575 | 7590 | 05/24/2006 | EXAMINER | |
| MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204 | | | PHAM, TAMMY T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2629 | |

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,833

Applicant(s)

TENG ET AL.

Examiner

Tammy Pham

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 1-15 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Wood et al. (US Patent No: 6,877,863 B2).

As for claim 1, Wood teaches of a system, comprising:

an accelerometer to measure tilt and rotation; and

a controller coupled to the accelerometer to predistort image data responsive to the tilt and the rotation such that the predistorted image data projects an undistorted keystone corrected image on a projection surface not perpendicular to a projection axis in Figs. 7-8 and in column 5, lines 66-32.

As for claims 2, 7, Wood teaches that the accelerometer is a two dimensional accelerometer in Figs. 7-8 and in column 5, lines 66-32.

As for claim 3, Wood teaches that the controller calculates a horizontal angle responsive to the tilt and rotation in Figs. 7-8 and in column 5, lines 66-32.

As for claim 4, Wood teaches that the system projects the predistorted image data as an undistorted image displaying no keystone distortion on a the projection surface in Figs. 7-8 and in column 5, lines 66-32.

As for claim 5, Wood teaches that a system, comprising:
position detecting means for detecting first and second positions; and
predistortion means for predistorting image data responsive to the first and second positions such that the predistorted image data projects an undistorted keystone distortion corrected image on a projection surface not perpendicular to a projection axis in Figs. 7-8 and in column 5, lines 66-32.

As for claim 6, Wood teaches that the position detecting means is an accelerometer in Figs. 7-8 and in column 5, lines 66-32.

As for claim 8, Wood teaches that the accelerometer is an inertial accelerometer in Figs. 7-8 and in column 5, lines 66-32.

As for claim 9, Wood teaches that the accelerometer generates a tilt signal indicative of vertical tilt; and

where the accelerometer generates a rotation signal indicative of a horizontal rotation in Figs. 7-8 and in column 5, lines 66-32.

As for claim 10, Wood teaches that a method, comprising:
automatically detecting a projector's position in two dimensions;
predistorting image data responsive to the projector's position such that the
predistorted image data projects a projected image without keystone distortion on a projection surface not perpendicular to a projection axis in Figs. 7-8 and in column 5, lines 66-32.

As for claim 11, Wood teaches of automatically detecting a projector's position includes automatically detecting vertical tilt and horizontal rotation in Figs. 7-8 and in column 5, lines 66-32.

As for claim 12, Wood teaches of calculating a vertical and horizontal rotation angles from the vertical tilt and horizontal rotation in Figs. 7-8 and in column 5, lines 66-32.

As for claim 13, Wood teaches of automatically detecting a projector's position includes using an accelerometer in Figs. 7-8 and in column 5, lines 66-32.

As for claim 14, Wood teaches of automatically detecting a projector's position includes using a two dimensional accelerometer in Figs. 7-8 and in column 5, lines 66-32.

As for claim 15, Wood teaches of automatically detecting a projector's position includes using an inertial accelerometer in Figs. 7-8 and in column 5, lines 66-32.

Response to Arguments

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy Pham whose telephone number is (571) 272-7773. The examiner can normally be reached on 8:00-5:30 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tammy Pham
May 15, 2006

KENT CHANG
PRIMARY EXAMINER